CLAIMS

1. (currently amended) A method for managing the channel suitability in a multiple access scheme, comprising:

obtaining information relating to noise associated with a channel;

estimating a potential effect of the noise on a transmission quality of the channel based on the obtained information;

assigning a rating to the channel based on the estimated potential effect;

classifying the channel into a grade of service class based on the assigned rating, the grade of service class comprising an alphanumeric grade, a video grade, an audio grade, and a not suitable grade; and

storing information relating to the channel and the associated rating and grade in a database.

2. (original) The method of claim 1, wherein obtaining information relating to noise associated with a channel further comprises: sampling channel noise; and correlating the sampled channel noise with the channel.

3. (original) The method of claim 1, wherein estimating a potential effect of the noise on the transmission quality of the channel based on the obtained information further comprises determining a projected bit error rate for the channel based on the obtained information.

4. (original) The method of claim 3, wherein determining the projected bit error rate for the channel further comprises: calculating one or more interference metrics for the channel using

the obtained information; and utilizing the calculated interference metrics to determine the projected bit error rate.

5. (original) The method of claim 4, wherein the interface metrics include a pulse position modulation error rate.

6. (original) The method of claim 1, wherein the grade of service class relates to the channel's suitability for carrying a particular data type.

7. (original) The method of claim 1, further comprising: prioritizing the channel the grade of service class based on the rating of the channel.

8. (original) The method of claim 7, wherein information relating to the priority of the channel is stored in the database.

9. (original) The method of claim 1, wherein the channel is obtained from the database.

10. (original) The method of claim 1, wherein the channel is periodically tested to determine whether the grade of service class of the channel needs to be changed.

11. (original) The method of claim 1, further comprising: receiving a request for a channel from a requestor; searching the database to obtain a channel suitable for fulfilling the request; allocating the suitable channel to the requestor, notifying the

requestor to use the allocated channel, and indicating in the database that the allocated channel is in use.

12. (original) The method of claim 1, further comprising: receiving information relating to use of a channel when a user relinquishes use of the channel; determining an actual bit error rate for the relinquished channel based on the received information, assigning a rating to the relinquished channel based on the actual bit error rate; classifying the channel to a grade of service class based on the assigned rating; updating the information relating to the channel stored in the database to indicate grade of service class of the channel based on the actual bit error rate and that the channel is available for use.

13. (original) The method of claim 1, wherein the channel comprises a sequence code in a code-division multiple access (CDMA) scheme.

14. (original) The method of claim 1, wherein the channel comprises an ultra wideband radio channel.

15. (currently amended) A system for managing the channel suitability in a multiple access scheme, comprising:

logic for obtaining information relating to noise associated with a channel;

logic for estimating a potential effect of the noise on a transmission quality of the channel based on the obtained information;

logic for assigning a rating to the channel based on the estimated potential effect;

logic for classifying the channel into a grade of service class based on the assigned rating, the grade of service class comprising an alphanumeric grade, a video grade, an audio grade, and a not suitable grade; and

logic for storing information relating to the channel and the associated rating and grade in a database.

16. (original) The system of claim 15, wherein the logic for obtaining information relating to noise associated with a channel further comprises logic for sampling channel noise; and logic for correlating the sampled channel noise with the channel.

17. (original) The system of claim 15, wherein the logic for estimating a potential effect of the noise on the transmission quality of the channel based on the obtained information further comprises logic for determining a projected bit error rate for the channel based on the obtained information.

18. (original) The system of claim 17, wherein the logic for determining the projected bit error rate for the channel further comprises logic for calculating one or more interference metrics for the channel using the obtained information; and logic for utilizing the calculated interference metrics to determine the projected bit error rate.

19. (original) The system of claim 18, wherein the interface metrics include a pulse position modulation error rate.

20. (original) The system of claim 15, wherein the grade of service class relates to the channel's suitability for carrying a particular data type.

21. (original) The system of claim 15, further comprising logic for prioritizing the channel the grade of service class based on the rating of the channel.

22. (original) The system of claim 21, wherein information relating to the priority of the channel is stored in the database.

23. (original) The system of claim 15, wherein the channel is obtained from the database.

24. (original) The system of claim 15, wherein the channel is periodically tested to determine whether the grade of service class of the channel needs to be changed.

25. (original) The system of claim 15, further comprising logic for receiving a request for a channel from a requestor; logic for searching the database to obtain a channel suitable for fulfilling the request; logic for allocating the suitable channel to the requestor, logic for notifying the requestor to use the allocated channel, and logic for indicating in the database that the allocated channel is in use.

26. (original) The system of claim 15, further comprising logic for receiving information relating to use of a channel when a user relinquishes use of the channel; logic for determining an actual bit error rate for the relinquished channel based on the received

information, logic for assigning a rating to the relinquished channel based on the actual bit error rate; logic for classifying the channel to a grade of service class based on the assigned rating; logic for updating the information relating to the channel stored in the database to indicate grade of service class of the channel based on the actual bit error rate and that the channel is available for use.

27. (original) The system of claim 15, wherein the channel comprises a sequence code in a code-division multiple access (CDMA) scheme.

28. (original) The system of claim 15, wherein the channel comprises an ultra wideband radio channel.

29. (currently amended) A computer program product for managing the channel suitability in a multiple access scheme, comprising:

computer code for obtaining information relating to noise associated with a channel;

computer code for estimating a potential effect of the noise on a transmission quality of the channel based on the obtained information;

computer code for assigning a rating to the channel based on the estimated potential effect;

computer code for classifying the channel into a grade of service class based on the assigned rating, the grade of service class comprising an alphanumeric grade, a video grade, an audio grade, and a not suitable grade; and

computer code for storing information relating to the channel and the associated rating and grade in a database.

30. (original) The computer program product of claim 29, wherein the computer code for obtaining information relating to noise associated with a channel further comprises computer code for sampling channel noise; and computer code for correlating the sampled channel noise with the channel.

31. (original) The computer program product of claim 29, wherein the computer code for estimating a potential effect of the noise on the transmission quality of the channel based on the obtained information further comprises computer code for determining a projected bit error rate for the channel based on the obtained information.

32. (original) The computer program product of claim 31, wherein the computer code for determining the projected bit error rate for the channel further comprises computer code for calculating one or more interference metrics for the channel using the obtained information; and computer code for utilizing the calculated interference metrics to determine the projected bit error rate.

33. (original) The computer program product of claim 32, wherein the interface metrics include a pulse position modulation error rate.

34. (original) The computer program product of claim 29, wherein the grade of service class relates to the channel's suitability for carrying a particular data type.

35. (original) The computer program product of claim 29, further comprising computer code for prioritizing the channel the grade of service class based on the rating of the channel.

36. (original) The computer program product of claim 35, wherein information relating to the priority of the channel is stored in the database.

37. (original) The computer program product of claim 29, wherein the channel is obtained from the database.

38. (original) The computer program product of claim 29, wherein the channel is periodically tested to determine whether the grade of service class of the channel needs to be changed.

39. (original) The computer program product of claim 29, further comprising computer code for receiving a request for a channel from a requestor; computer code for searching the database to obtain a channel suitable for fulfilling the request; computer code for allocating the suitable channel to the requestor, computer code for notifying the requestor to use the allocated channel, and computer code for indicating in the database that the allocated channel is in use.

40. (original) The computer program product of claim 29, further comprising computer code for receiving information relating to use of a channel when a user relinquishes use of the channel; computer code for determining an actual bit error rate for the relinquished channel based on the received information, computer code for assigning a rating to the

relinquished channel based on the actual bit error rate; computer code for classifying the channel to a grade of service class based on the assigned rating; computer code for updating the information relating to the channel stored in the database to indicate grade of service class of the channel based on the actual bit error rate and that the channel is available for use.

41. (original) The computer program product of claim 29, wherein the channel comprises a sequence code in a code-division multiple access (CDMA) scheme.

42. (original) The computer program product of claim 29, wherein the channel comprises an ultra wideband radio channel.

43. (previously presented) A method for managing a wireless channel suitability in a wireless multiple access scheme, comprising:

obtaining information relating to noise associated with a wireless channel;

estimating a potential effect of the noise on a transmission quality of the wireless channel based on the obtained information;

assigning a rating to the wireless channel based on the estimated potential effect;

classifying the wireless channel into a grade of service class based on the assigned rating; and

storing information relating to the wireless channel and the associated rating and grade in a database.

44. (previously presented) A method for managing an ultra-wideband channel suitability in a multiple access scheme, comprising:

obtaining information relating to noise associated with an ultra-wideband channel;

estimating a potential effect of the noise on a transmission quality of the ultra-wideband channel based on the obtained information;

assigning a rating to the ultra-wideband channel based on the estimated potential effect;

classifying the ultra-wideband channel into a grade of service class based on the assigned rating; and

storing information relating to the ultra-wideband channel and the associated rating and grade in a database.